

Properties of Matter & Conservation of Mass

Fill in each part when its number appears on the slide.

Name: _____ Date: _____

PART 1 · TARGET

I can measure and describe properties of matter and explain why mass stays the same when matter changes.

PART 2 · WARM-UP

1. List three properties you could use to describe a rubber ball.

2. A backpack has a mass of 3 kg. You put a 1 kg book inside. What is the total mass? Explain how you know.

3. Predict: If you melt a 50 g ice cube in a sealed bag, will the water weigh more, less, or the same? Why?

PART 3 · PREDICTION

A 50-gram ice cube melts inside a sealed bag. What will the water weigh?

Circle one: ☐ More than 50 g ☐ Exactly 50 g ☐ Less than 50 g

PART 4 · VOCABULARY

Word	Meaning
Matter	
Mass	
Volume	
Physical change	

PART 5 · MATTER HAS PROPERTIES

Matter is anything that has _____ and takes up _____. We can test properties like magnetism, conductivity, and _____.

Check: Which property tells if a substance dissolves in water?

Circle one: (A) Conductivity (B) Hardness (C) Solubility (D) Magnetism

PART 6 • MEASURE MASS AND VOLUME

Mass is measured in _____ with a _____. Liquid volume is measured in _____ with a graduated cylinder.

Check: What is the volume of the box shown in the tool? (cubic centimeters)

Answer: _____ cm³

PART 7 • PHYSICAL VS. CHEMICAL CHANGE

A _____ change makes no new substance. A _____ change makes a new substance. Clues include gas _____ and a new color.

Check: Baking soda and vinegar fizz. Which kind of change is it?

Circle one: (A) Physical, because it is a liquid (B) Physical, because it can be undone (C) Neither (D) Chemical, because a new gas forms

PART 8 • CONSERVATION OF MASS

In a _____ system, the mass before a change _____ the mass after. If a gas escapes, the scale reading goes _____.

Check: Sealed flask: 200 g before fizzing. What does it weigh after?

Circle one: (A) Less than 200 g (B) More than 200 g (C) 0 g (D) 200 g

PART 9 • WORKED EXAMPLE

Final answer from the example: _____

PART 10 • WE DO

A sealed bag holds 40 g of vinegar and 5 g of baking soda. They fizz and the bag puffs up. What does the bag weigh now?

Answer: _____

PART 11 • YOU DO

An OPEN cup holds 150 g of water and a 10 g antacid tablet. After fizzing, the scale reads 157 g. What happened to the other 3 g?

Circle one: (A) The scale is broken (B) It turned into water (C) It escaped into the air as a gas (D) It was destroyed

PART 12 • WORK TIME: THE CASE OF THE MISSING MASS

Write each code piece as you earn it: File 1: _____ File 2: _____ File 3: _____ File 4: _____ File 5: _____

Final code: _____

PART 13 • WRAP-UP

Was your prediction in Part 3 right? One thing I learned today:
